

NAVY PIER

Preliminary Summary of Information
October 6, 1977

Commission on Chicago Historical
and Architectural Landmarks

NAVY PIER

Grand Avenue and Streeter Drive at Lake Michigan
Chicago, Illinois

Architect: Charles S. Frost

Architect for Restoration: Jerome R. Butler, City Architect

Date of Construction: 1916

Date of Restoration: 1976

Daniel Burnham's Chicago Plan of 1909 called for two piers projecting into Lake Michigan, one on each side of the entrance to the Chicago River. Over a billion dollars had gone into new landfill on the Lake Michigan shoreline and in the construction of various recreational and commercial facilities along the lakeshore. In 1910, the Chicago Harbor and Skyway Commission submitted an improvement plan to relieve the heavy congestion of river traffic coming into the Chicago River. At that time river traffic was so heavy that vessels had to be stopped so that bridges could be lowered to allow pedestrians and vehicles to cross. The report of the Commission called for five piers, with Municipal Pier #2 having both trade and recreational facilities. Municipal Pier, later called Navy Pier, was the only one of the five completed. It was built immediately north of the Chicago River from the foot of Grand Avenue during the years 1913-1916. Edward C. Shankland was the chief engineer and William Artingstall the harbor engineer. The nationally-known architect Charles Sumner Frost designed the pier.

Charles Frost was born in 1856 and graduated from the Massachusetts Institute of Technology in 1876. He began his professional career with Henry Ives Cobb in 1882. Cobb and Frost designed many of the buildings at the University of Chicago, including the president's house. Frost also designed the Union Club, Newberry Library, old Opera House and old City Hall, among other Chicago buildings. In 1898, he joined in a partnership with Albert H. Granger which lasted over a decade. Frost and Granger designed several large railroad terminals in Chicago including the Northwestern and the LaSalle Street Stations. They also designed St. Luke's Presbyterian Hospital and the Northern Trust Bank building. Frost had an excellent knowledge of construction methods and was frequently called upon to serve as arbitrator in the settlement of conflicting claims. It was while he was a member of the firm Frost and Granger that he designed Navy Pier.

Municipal Pier was a multi-purpose harbor structure of steel, concrete and brick designed to handle intra-and inter-lake passenger and package freight vessels and also to serve as a recreational center. The pier was more modest than Daniel Burnham had originally planned, but its 3,000 foot length and 292-foot width make it a substantial structure nevertheless. The major part of the length (2,335 feet) encompassed dock and shed space in the form of two parallel double-level buildings separated by a central eighty-foot driveway containing the double-track rail line that constitutes

the Harbor Branch of the Northwestern Railway. The remaining length of the pier consisted of office space at the shore end and areas for recreation and public ceremonies at the other end. Burnham insisted on public access to the recreational areas of the lakeshore so Municipal Pier was complete with its own streetcar line. In the summer excursion boats operated from the pier to Lincoln and Jackson parks.

Municipal Pier included a series of brick-faced steel-framed enclosures carried by a concrete foundation which in turn rested on extensive timber piling driven to depths ranging from 20 to 27 feet. During the construction process three rows of piles were driven into the lake bed on each side of the pier area. The piling then formed the support for the dock walls of massive concrete. Outside the wall line timber sheet piling was driven around the entire periphery of the walled area to retain a protective fill of sand, clay, and rock which was placed by means of scows and hydraulic dredges. The piling was held in place by two devices: one was a system of lateral steel tie rods and the other a rock fill on the outside face low enough to clear the bottoms of the laden vessels. The steel columns of the various buildings were supported by footings resting on independent pile clusters. Office space, freight and passenger sheds, and the recreational areas were mostly framed in a conventional column-and-girder system, but the roofs of the shed and the public hall at the outer end were supported by three-hinged arch trusses that represented the most extensive installation of this form in American building. The main hall, which was designed to seat 4,000 spectators for public events, measured 140 by 150 feet in plan and was covered by a skylighted vault carried on three hinged arches each with a span of 136 feet. Radial trusses in the form of half arches supported the domed roof over the semicircular end of the building.

During the 1920s Chicago experienced prosperity as never seen before. The population grew from 2,700,000 in 1920 to 3,376,000 in 1930. At this time inter- and intra-lake commercial activity had reached a peak. Excursion boats, cargo ships, and lake steamers moored alongside the parallel double-decked sheds of Municipal Pier. Open berths were hard to find. A person could board a package freighter from Municipal Pier to any port on the Great Lakes. At this outermost reach was a recreation area with high arcades and extravagant esplanades. Crowds attended art shows, plays, trade fairs, and picnics. It was the "in" place to be. The Convention Hall was the largest in America. People danced and attended concerts in the main hall. Lanterns topped the 2,165-foot concert hall towers. During his second consecutive term as Mayor in 1923, William Hale Thompson published a brochure called *"Eight Years of Progress"* in which the pier was described as a "Modern Sans Soucci"- a veritable palace without a care where fresh air, sunshine, free concerts and entertainment under ideal conditions were gratuitously dispensed." The pier gave Chicagoans a number of reasons for getting together inexpensively.

On December 28, 1927, the City Council of Chicago passed a resolution to change the name of Municipal Pier to Navy Pier. Earlier it was suggested to name the pier after Woodrow Wilson but that was rejected in favor of establishing the pier as a memorial to Midwesterners who had served in the Navy during World War I. Navy Pier became the official name on October 25, 1931.

During the 1930s with the Depression and the introduction of the motor truck, the successful package freighter business came to an end on the Great Lakes and thus at the pier. Shipping lines vanished one by one. Although excursion boats and passenger sidewheelers continued to use the pier for years, and social events continued, they couldn't keep it financially solvent.

On August 16, 1941 recreational use of the pier ended when Chicago sacrificed it to the Navy in the interest of national defense. The east end which had been the focal point of recreation was renovated for the use of the Navy. Originally it had been a triple-decked open air entertainment area. A vast promenade deck with a boardwalk circled it. The Navy enclosed it on two levels for office space and subdivided areas inside to serve as classrooms for a Naval Aircraft Mechanics Training School. During the War people would visit and watch Navy demonstrations on the pier.

The Navy used the pier until 1947. In 1946, as the Navy was moving out, agencies of city and federal government moved into the office space. The War Assets Administration used the pier for public auctions of surplus materials and the Chicago Police Department's Traffic Division maintained administrative offices, a garage, and a branch of traffic court on the pier's south side. Until 1955, Traffic Court remained at the pier.

The City of Chicago leased the pier to the University of Illinois in 1946 for use as a two-year college. Following the war the college was attended by thousands of veterans under the G.I. Bill. After the Navy left few changes had to be made to convert the pier to a college. "Harvard on the Rocks," as it was called, consisted of twenty-one labs, fifty-two classrooms and four lecture halls. A cafeteria seating 1100 as well as a faculty dining room and lunch counters were installed. The Auditorium Hall became the Convocation Hall and Gym. In 1965, when Circle Campus opened on the West Side, the University of Illinois left Navy Pier. The original drill hall became the Chicago Fire Department Gym and began functioning as part of Mayor Daley's Youth Foundation.

As early as 1935 Navy Pier was handling shipping on a limited basis. Work on the rebuilding of Navy Pier began before the opening of the St. Lawrence Seaway. In November of 1955 work began on the enlargement of the Calumet-Sag Channel and on development of Lake Calumet. The late Richard J. Daley commissioned the engineering firm of McCarthy-Stratton in 1957 to conduct a study on the

feasibility of developing Navy Pier into an overseas terminal. The report was positive and recommended the construction of a two-berth facility to coincide with the projected opening of the St. Lawrence Seaway. Two multi-million-dollar bond issues were passed to finance the conversion of Navy Pier into an overseas terminal. The four-million-dollar renovation project took place in 1958 in preparation for the first ocean-going vessel coming to port after the 1959 opening of the St. Lawrence Seaway. It provided berthing space for two ocean-going ships. A forty-one foot apron was constructed at the west end to facilitate loading and unloading operations near the berths. Each of the berths could accommodate a ship 600 feet long. Dock extensions were made to widen the pier by 96 feet. Storage units were repaired and the Chicago and Northwestern Railway built an extension of the Illinois Street line onto the dock. The harbor was dredged from 21 to 29 feet, equal to that of the St. Lawrence Seaway, to accommodate international shipping.

On April 30, 1959, the *Johan Willem Friso* of the Dutch Orajé Line was the first overseas vessel to arrive at Navy Pier through the St. Lawrence Seaway. In June of 1959 the opening of the seaway was officially celebrated when the *Brittania* carrying Queen Elizabeth II and Prince Philip led fifty vessels from Montreal to Chicago. From then on Chicago came to be known for world shipping.

By the mid 1960s Navy Pier was handling more than 250 overseas vessels annually. The volume of traffic began to decline during the late 60s with the opening of the Calumet Harbor area to the South. Both the opening of the Calumet Harbor and worldwide economic conditions made the decline inevitable. In 1974, only twenty freighters docked at the pier.

More than 300,000 square feet of the pier was available for trade shows prior to the opening of McCormick Place in 1960. Until this time all trade shows in the city were presented at Navy Pier or the Union Stockyards Amphitheater. During the 50s the pier handled twelve to sixteen events annually. When McCormick Place opened this space went unused. After a fire destroyed the original McCormick Place in January 1967, Navy Pier was again used for trade shows for about four years during the rebuilding of McCormick Place.

As early as 1964 Mayor Daley asked city planners to think of renovation plans for the pier. Public disuse of the pier represented a serious gap in the lakefront continuity. Phase One of the nationally acclaimed renovation project, which was done under City Architect Jerome Butler and his staff in the city's Department of Architecture was completed during the summer of 1976 in time for the Chicago Association of Commerce and Industry's International Trade Fair as well as for a series of Bicentennial celebrations. The 7.2-million-dollar renewal job is evident most noticeably at the east end of the structure. The terminal shelter, recreation buildings, and auditorium along with the east end

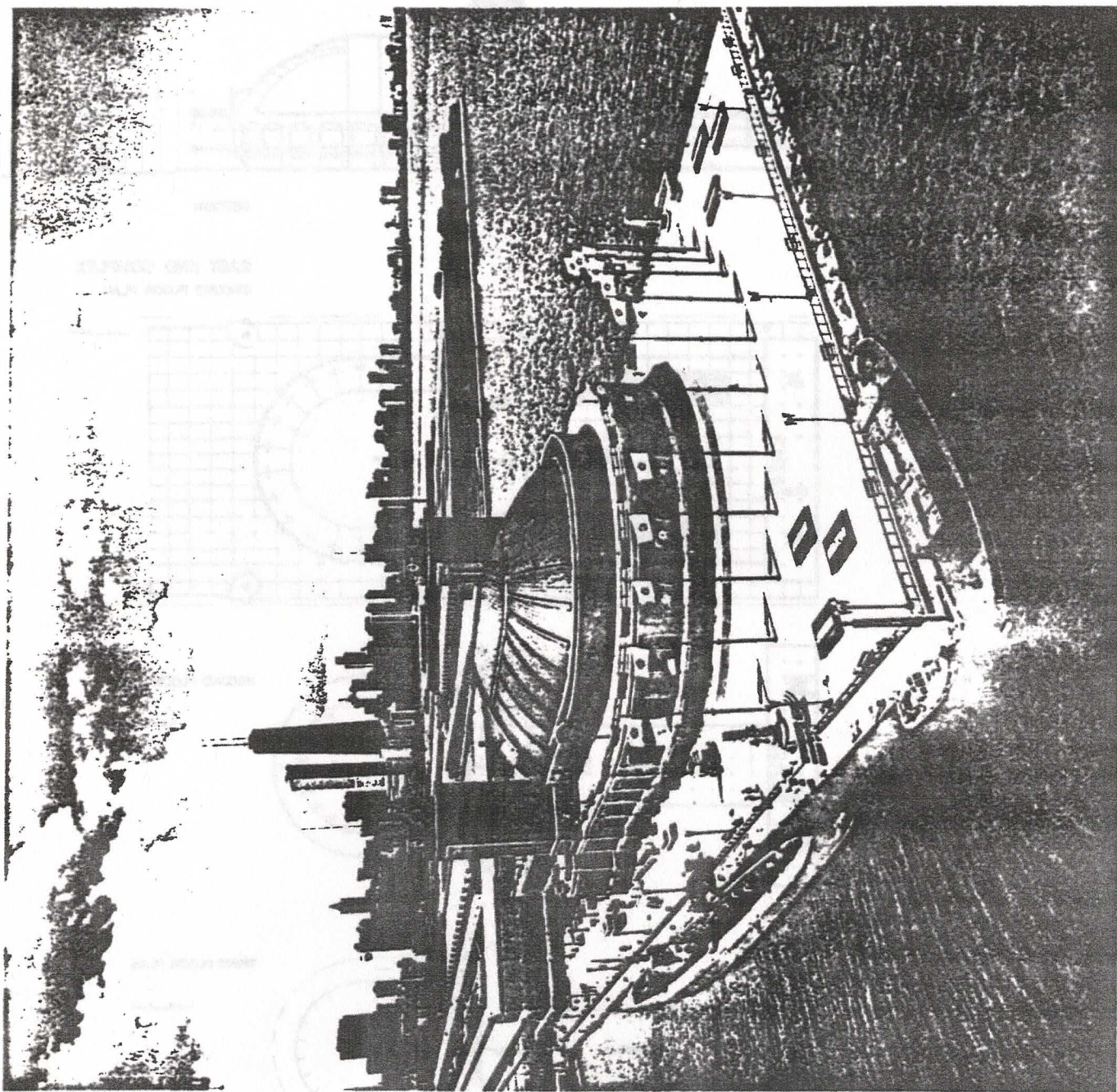
promenades and terraces were renovated. Navy Pier hadn't been maintained properly during the previous sixty years of exposure to the Chicago winters and the annual freeze-thaw cycle. The painstaking process of removal of deteriorated materials such as masonry and terra cotta and the technical problems of blending new materials with old was a challenge to the architects. The theater has been restored to its original appearance and thousands of old-fashioned bare filament bulbs shine from exposed interior trusses. Chicago high school students designed and painted murals, depicting the history of Chicago from the fire of 1871 to the present, for permanent display on the north promenade.

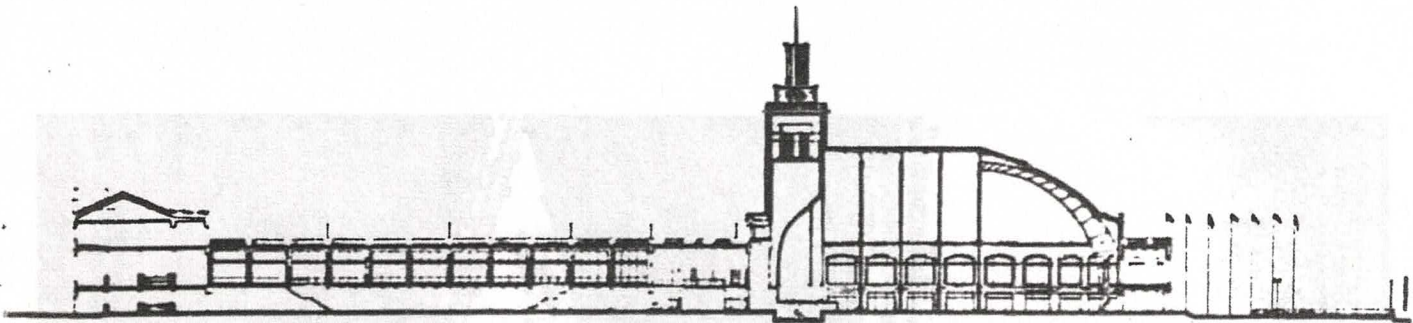
With the aid of federal funds, a solar energy project was undertaken and solar energy now provides one-third of the heat in the terminal building by capturing the sun's energy for space heating and hot water.

On July 1, 1976, the International Trade Exposition opened at the renovated Navy Pier. A ball and parties celebrating the renovation preceded the exposition. The trade fair saw the pier once again alive with a carnival-like atmosphere it had not known for decades. In August of 1976 the Norwegian sailing vessel Christian Radich docked at the east end of the pier for three days. Thousands visited the pier to see the vessel and the Sunday crowd was estimated at 40,000. It has since been used for a variety of events including concerts, lakefront festivals, public ceremonies, and it has facilities for biking, fishing, and picnicing.

Navy Pier represents a unique, potentially dynamic, public recreational facility on Chicago's lakefront. Future plans on the commercial side are contingent on finding an appropriate outside developer and the pier has been suggested for a number of uses. Presently the Navy is relocating its Reserve Armory, located south of Harbor Point, to the pier.

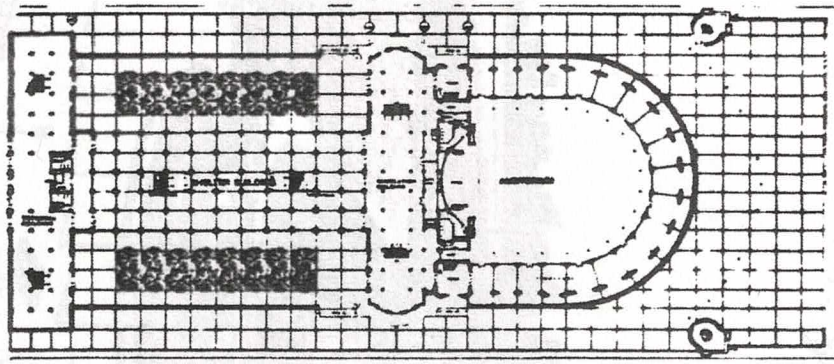
Navy Pier, the forgotten asset on Chicago's lakefront, has been returned to Chicagoans and thus far the return has been successful.



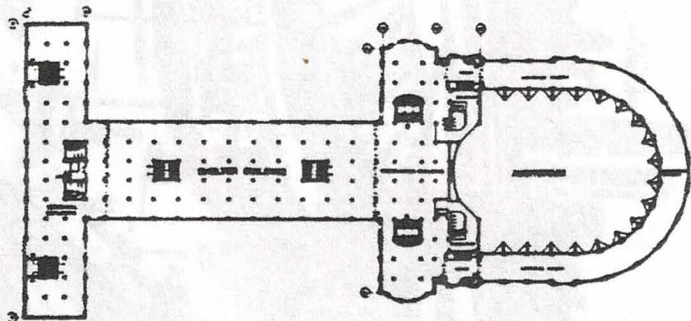


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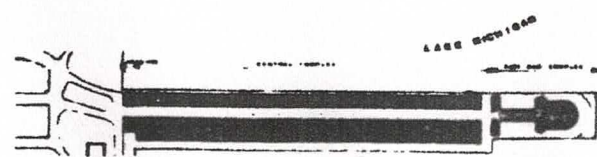
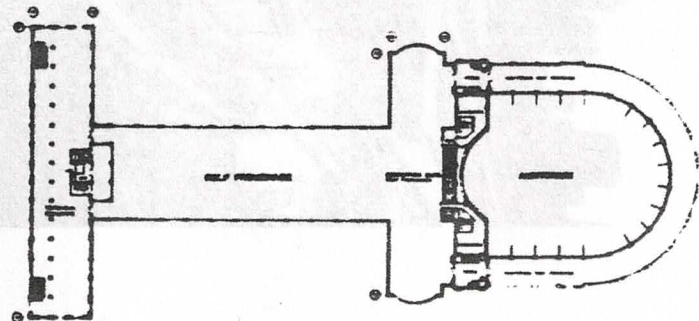
EAST END COMPLEX
GROUND FLOOR PLAN



SECOND FLOOR PLAN



THIRD FLOOR PLAN



LOCATION PLAN

Navy Pier Restoration



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